



**General Services Administration
Federal Acquisition Service
Northeast and Caribbean Region**

**ISSUED TO:
Booz Allen Hamilton Inc. (BAH)
ALLIANT GOVERNMENTWIDE ACQUISITION CONTRACT
(GWAC)# GS00Q09BGD0019**

**PERFORMANCE-BASED STATEMENT
OF WORK (PBSOW)
For
PROGRAMMATIC, TECHNICAL, AND SUSTAINMENT
INFORMATION TECHNOLOGY (IT) SUPPORT SERVICES**

**US ARMY
PROJECT MANAGER TACTICAL RADIOS (PM TR), U.S ARMY,
ABERDEEN PROVING GROUNDS, MD**

TASK ORDER #GSQ0216CJ0003, ITSS# ID02150024

01/11/2016

1 INTRODUCTION

The Project Management Office for Tactical Radios (PM TR), located at Aberdeen Proving Ground (APG), Maryland is the Army's provider of tactical combat network radios and waveforms to the Warfighter at Brigade. PM TR employs state of the art technologies and waveforms to extend the Department of Defense (DOD) digital voice and data network down to the foxhole. At the same time, the Project Management Office (PMO) is responsible for maintaining a wide range of terrestrial and single channel Satellite Communication (SATCOM) radios that are part of the legacy architecture but continue to be supported throughout their life-cycle: from cradle to grave. PM TR's fielded products are used extensively and successfully in combat today.

PM-TR is an integral part of the Army Network Integration Evaluation (NIE) and Capability Set exercises (CS XX) technology. PM TR is responsible for fielding a new generation of secure tactical networked radios and their waveforms that are lighter and provide both better communications capability and security for the soldier while managing most efficient production of these vehicular mounted and man portable systems. As of June 2015, PM TR will be absorbing Joint Tactical Network (JTN) Waveforms which has branched off from JTN Center.

2 SCOPE

The scope of this requirement is to obtain the full range of programmatic, technical, and sustainment Information Technology (IT) support services necessary to assist PM TR and associated Product Management (PdM) Offices, to include the newly transitioned JTN, in their mission to procure and field tactical radio network communications systems while applying sound program management and acquisition techniques to meet cost, schedule, and performance requirements, at the least amount of risk.

The range of services required spans subject matter expertise in systems engineering, information assurance, and Acquisition programmatic, with skill sets and experience commensurate with the need of the Project Manager Tactical Radios (PM TR) product family to comply with and respond to DOD, Army, Joint, Allied and Coalition requirements including all program planning and acquisition documentation, systems engineering/architecture documentation, cost /financial documentation, and budgetary documentation as mandated by DOD 5000.2 and other applicable regulations and policies. As a part of overall program management, the Contractor may be required to support PM TR in planning for and developing the foundation for potential future Foreign Military Sales (FMS) and direct commercial sales. During task execution, the Contractor may be required to purchase ancillary supplies and consumables that are related to the mission being performed.

3 REQUIREMENTS/TASKS ((PERFORMANCE BASED WORK STATEMENT))

The objective of this resultant Task Order is to obtain the full range of program management and engineering support services to assist and support the JTN applications capable of operating in a variety of hardware transport solutions, for both Programs of Record and commercial radios, via an affordable, government-controlled open architecture in support of Combatant Commanders', Services' and Coalitions' interoperable network mission requirements. The range of Task Order services required span subject matter expertise in Program Management, Operations Management, Acquisition Management, Systems Engineering, Software Engineering, Network Engineering, RF Engineering, Information Assurance Engineering, Test and Evaluation Engineering, Financial Management, Cost Estimating, and Administrative Support Services with skill sets and experience commensurate with the need of the JTN to comply with and respond to DoD, Service, Joint, Allied and Coalition requirements including all program planning and acquisition documentation, systems engineering / architecture documentation, cost / financial documentation, and budgetary documentation as mandated by DoD 5000.2 and other applicable regulations and policies. JTN carries out responsibilities to develop, enhance, and maintain radio software components to all JTRS terminals that instantiate: Networking Waveforms, Legacy Waveforms, Network Management, Enterprise Services while applying sound program management and acquisition techniques to meet cost, schedule, and performance requirements at a moderate risk. The Contractor must possess skill sets and experience commensurate with the PM TR and associated product family missions to comply with and respond to DOD, Army, Joint, Allied and Coalition requirements including all program planning and acquisition documentation, systems engineering / architecture documentation, cost / financial documentation, and budgetary documentation as mandated by DOD 5000.2 and other applicable regulations and policies. As a part of overall program management, the Contractor may be required to support PM TR in planning for and developing the foundation for potential future Foreign Military Sales (FMS) and direct commercial sales. Furthermore, the Contractor must be able to provide the full range of Lifecycle Acquisition Support. Products under PM TR are developed and procured on an incremental basis.

The following tasks shall be performed by the contractor.

3.1 TASK 1. PM TR Program Management Support

The Contractor shall provide IT centric management support to PM TR and the associated product families in the areas described below. All support shall enhance the effectiveness of day-to-day operations, be responded to within the timeframe assigned by the customer, and be professional in quality, form and substance. In most cases, formatting instructions for requested items will be provided by the customer. If no format is specified then Best Commercial practices are acceptable.

3.1.1 Program Management, Strategy, and Planning Support

- A. The Contractor shall coordinate and participate in working group meetings, IPT sessions, in-process reviews, and other meetings. The Contractor shall be responsible for creating all supporting documentation necessary for full participation in the meeting to represent the PMO position. The Contractor shall submit this documentation to the customer for review and approval no later than two days prior to

the meeting and revise the documentation as requested. The Contractor shall submit meeting minutes, noting all action items within four days of the meeting.

- B. The Contractor shall provide management support in developing and responding to program data calls, white papers and requests for information from multiple sources related to information systems in general and combat radios in particular. The Contractor shall develop, or request from the appropriate sources, the necessary data to develop, initial and final revisions within the time required to support scheduled deadlines. Support shall meet the schedule and format assigned by the customer. Documents shall be accurate, complete and free of grammatical, typographical and spelling errors, 95% of the time.
- C. The Contractor shall provide Radio Communications and Networking subject matter expertise to the programs for briefs, program plans, presentations, documentation and diagrams in support of the programs, operations and management initiatives. All support shall be prepared in accordance with the applicable Directives or as assigned, and submitted within the requested schedule.
- D. The Contractor shall assist the team to identify and resolve program action items. The Contractor shall evaluate research and submit recommendations to resolve/improve all assigned action items to the customer within 30 days or earlier, if specifically requested.
- E. The Contractor shall compile, track and analyze performance metrics and provide detailed reports, charts and graphs in the format and timeframe prescribed by the customer.
- F. The Contractor shall develop, implement and maintain Contractor management operating policies, process flow charts, procedures and information management used to support functions, no later than 3 months after effective date of contract. All procedures and processes shall be documented, and the Contractor shall maintain a desk-book of all Contractor's operating procedures and processes used to support all functions. The Contractor shall review and validate/update procedures semi-annually, in January and June of each year. When requested by the Government, the Contractor shall provide a copy of the latest update of the desk-book within 14 days of the request.
- G. The Contractor shall be able to identify and correct internal problems and make recommendations in all aspects of operations contained in this PBSOW.
- H. The Contractor shall take technical notes as assigned by the meeting planner or customer during all status-related meetings. The Contractor shall provide technical notes shall be typed in the proper format and distributed to appropriate personnel as designated by the Task Manager or customer. Technical notes shall be 95% accurate and completed in the time that is required by customer.

- I. The Contractor shall provide technical and planning support for meetings, conferences and working groups. This support shall include coordination of the meetings, drafting meeting agendas, setup and operation of Video Teleconferencing (VTC) equipment and other audio-visual equipment, taking technical notes, and finalizing and distributing those notes as directed within the schedule established by the customer. Contractor personnel shall have the appropriate level of investigation and/or security clearance for each event. The Contractor will observe and comply with all security provisions in effect at each event.
- J. The Contractor shall coordinate special events, meetings, conferences and work groups. The Contractor shall notify participants, provide agendas, directions and arrange for appropriate equipment. The arrangements shall be made in accordance with the procedures and schedule set by the customer, and all changes/modifications approved by the customer before implementation. Contractor planned events shall be arranged so there are fewer than five verified attendee complaints and the Contractor shall submit a summary event report within the timeframe assigned by the customer. Contractor personnel shall have the appropriate level of investigation and/or security clearance for each event. The Contractor will observe and comply with all security provisions in effect at each event.
- K. The Contractor shall provide analysis support of the PMO metrics program. This will include recommendations of processes to measure and measurement methods, collection of data, and analysis of metrics. The Contractor shall collect metrics monthly and quarterly as required by the reporting schedule. Metrics reports shall be provided in assigned briefing format NLT the 20th of the following month.
- L. The Contractor shall provide management support in developing Memorandum of Agreements (MOA) between PM TR and its customer that define the operational and support responsibilities during the acquisition, development, integration, production and fielding of tactical radios. Support shall include coordination with MOA stakeholders to reach agreements in support of program deadlines. Document shall accurately represent the interest of PM TR and its customers.
- M. The Contractor shall provide a real-time analytics capability to manage integrated schedule, budget, and risk in support of PM TR programs. The contractor capability shall identify lead drivers of cost and schedule by year; and quantify the cost and schedule impact of changes to scope or requirements
- N. The Contractor shall provide Risk Management support and administration for each program in accordance with the PM-TR Risk SOP and appropriate acquisition regulations. The Contractor also must provide updated Risk Evaluations for all briefings as required. The Contractor shall provide monthly Risk updates to the PM.

3.2 TASK 2. System Engineering Support

- A. The Contractor shall provide IT centric systems engineering and integration subject matter expertise on Tactical Radio Systems to include: review of existing

engineering/technical procedures and revision; system performance / functional specifications; development and/or implementation of engineering/technical processes; Concept of Operations (CONOPS) definition based on multi-service liaison; Joint Tactical Radio System (JTRS) architecture and design based on CONOPS, technology, budget, interoperability, and other relevant considerations; Hardware (H/W), software (S/W), cryptographic, and waveform requirements to implement architecture and design; technical data metrics; and test planning, coordination, oversight, analysis, and reporting. All applicable deliverables shall be provided to the customer within the timeframe assigned and in the format required by the customer.

- B. The Contractor shall provide subject matter expertise for technical assessments and studies related to architectures, designs, and products. The Contractor shall assess the progress and risk in pre-System Design and Demonstration (SDD), SDD and production efforts, as applicable, on the Programs and provide recommendations per Best Practice standards as specified by the customer. The Contractor shall report progress to the PM TR Technical Director or appropriate product line Integrated Product Team leads and shall prepare final briefings to the PM TR in conjunction with timelines specified by the customer.
- C. The Contractor shall provide subject matter expertise in the following areas: analysis and assessments on PM TR and related programs, to include customer platform based IT systems; requirements analysis and configuration control; Capability Development Documents (CDD); Roadmaps; Net Ready Key Performance Parameters (NR-KPP); Global Information Grid (GIG) Key Interface Profiles (KIPs); Analysis of Alternatives (AoA) and resulting technical recommendations; planning and scheduling; and Global Information Grid (GIG) Compliance, technical architecture development and review, support of Integrated Architecture Product (SIAP) integration evaluation, and Contractor design evaluations. Active participation at various engineering and programmatic meetings shall be required. All applicable deliverables shall be provided to the customer within the timeframe assigned and in the format required by the customer.
- D. The Contractor shall provide knowledge and experience in robust and disciplined IT and radio frequency (RF) engineering policies and procedures for the procurement and sustainment of systems, sub-systems, components, processes, equipment, and technology insertion or planning as directed by the task order.
- E. The Contractor shall assist in translating DOD user requirements into system requirements which shall be used to design, develop, fabricate, test, and evaluate radio systems, subsystems, and equipment.
- F. The Contractor shall perform IT-centric technical and mission analyses of operational requirements, assist in developing system concepts, and perform technological and trade-off study assessments of proposed radio system designs and provide recommendations.

- G. The Contractor shall assist in reviewing the overall system design baseline (architecture and interoperability) requirements.
- H. The Contractor shall review and provide comments on specifications, including systems, system segments, components, equipment specifications, and Interface Control Documents (ICDs) submitted by the weapon system Contractor or other DOD agencies involved in the program.
- I. The Contractor shall support and conduct engineering performance, effectiveness, cost effectiveness, cost performance, life-cycle cost, producibility, maintainability, supportability, reliability, technical and schedule risk assessment, and scheduling trade-off studies and document this information in a technical report as directed by the task order. The Contractor shall support and conduct systems analyses to include radio system design or design feasibility and state-of-the-art assessments.
- J. The Contractors shall provide knowledge and experience in the development of Tactical Radio acquisition program information requirements to support milestone decision points and acquisition phases for all Acquisition Category (ACAT) program types, to include System Engineering Plans (SEP); Information Support Plans (ISP); Information Technology and National Security System (NSS) Interoperability Certifications; Bandwidth requirement assessments; and Frequency Allocation Applications in accordance with current DOD instructions. Documentation related to milestone decision points shall be provided with enough time for staffing with the Milestone Decision Authority (MDA) in the timeframe required by the customer.
- K. The Contractor shall provide knowledge and experience with the complete body of PM TR product family of Software Defined Radios (SDR), to include the Rifleman, Manpack, Small Form Fit, and Mid-Tier Networking Vehicular radios. The Contractor shall provide subject matter expertise in SDR hardware and software technology, including trade-off analysis and expertise in platform integration assessments.
- L. The Contract shall provide subject matter expertise in technology to minimize tactical radio performance degradation from intentional or unintentional sources of Electromagnetic Interference (EMI) and Electromagnetic Compatibility (EMC). The Contractor shall be familiar with systems that co-exist with fielded tactical radios, including Jamming systems and others. The Contractor shall provide knowledge and expertise with EMI/EMC analysis tools, with methods to characterize degradation, and with co-site mitigation solutions.
- M. The Contract shall provide subject matter expertise with the JTRS family of waveforms, including Soldier Radio Waveform (SRW) and Wideband Networking Waveform (WNW). The Contractor shall be familiar with the development history of the waveforms, their requirements, and their current configuration and implementation of the waveforms. The Contractor shall provide knowledge and experience with the Joint Tactical Networks (JTN) waveforms sustainment process, including problem

reports, change requests, and configuration controls.

- N. The Contractor shall provide subject matter expertise in Link-16 technologies, to include thorough familiarity with all MIDS Radio systems and their requirements, and the history of their development, including MIDS-LVT, MIDS-JTRS, and their variants, the Link-16 Waveform requirements and the various implementations of that waveform, and its development history, including its message standard (MIL-STD-6016E) and its history, as well as the MIDS System/Segment ICD and the workings of Link-16 terminal radio configuration and control.
- O. The Contractor shall provide knowledge and experience of the JTRS program, including knowledge and experience with the original JTRS ORD (2003) and knowledge and experience with the concept and development of Tactical Programmable radios, including the Cluster 1-5 programs, the GMR and legacy HMS programs and the JTRS Software Communications Architecture.
- P. The Contractor shall provide knowledge and experience developing SEPs in accordance with the new format (PDUSD-Approved SEP Outline_04-20-2011), and adapting this outline to various program acquisition phases.
- Q. The Contractor shall provide knowledge and experience in applying the Systems Engineering acquisition process to a modified NDI acquisition strategy, including interpretations of the latest version of the Defense Acquisition Guidebook regarding Systems Engineering activities required pre- and post-solicitation, and Systems Engineering products that would normally be expected as input and output of the traditional acquisition phases.
- R. The Contractor shall manage and maintain Waveform Key accounts and provide Soldier Radio Waveform (SRW), and other keys as required, for training, testing, development, and operational requirements. The Contractor shall provide Key Controlling Authority in order to authorize and coordinated the transfer of COMSEC Keys to the appropriate accounts in support of various Key requirements. The Contractor shall provide Subject Matter Expertise for Tactical Key, Certificate and Data Management. The Contractor shall ensure all Information Assurance certifications and Crypto Modernization requirements are approved and coordinated with NSA in accordance with Program schedules and regulations.
- S. The contractor shall have detailed knowledge of the NSA Information Assurance Security Requirements Document (IASRD) and possess over 10 years directly supporting National Security Administration (NSA) Information Assurance Directorate (IAD), the creators of the IASRD.
- T. The contractor shall possess an NSA-approved methodology and process for conducting software evaluations on Type 1 high assurance products and have a full understanding of the NSA expectations and requirements that are placed upon programs of record (POR) for satisfying the NSA Type 1 Certification Process.

- U. The contractor shall have developed tools and customized solutions for the specific purpose of evaluating the IA posture of software defined radios and their associated waveforms.
- V. The contractor shall evaluate secure software defined radios and waveforms using NSA CDRLs. The contractor shall review SDR implementations and other software against NSA criteria.

3.2.1 System Integration

The Contractor shall support the development of radio system integration plans. This support shall include the review of ICDs, participation on appropriate Interface Control Working Group (ICWG) activities, tracking status of ICD development and problem resolution, review of integration test plans, procedures, and data, and support of special studies to define alternative interface and integration approaches.

3.2.2 Network Management Support

The Contractor shall provide IT centric network management subject matter expertise to include: user identification and consultation; Information Exchange Requirement (IER) analysis; spectrum management; interoperability and interface recommendations; Oversight, verification, and validation to ensure compliance with: voice and data architecture; network design; and H/W & S/W specifications and wave form standards. This includes detailed knowledge of the JENM product, the HMS and JTN Enterprise OTAM solutions as well as tactical radio network management capabilities. All applicable deliverables shall be provided to the customer within the timeframe assigned and in the format required by the customer.

3.2.3 Software Engineering Support

The Contractor shall provide knowledge and experience necessary in software management, acquisition strategies, risk, technical insight, policies, and procedures in support of radio communication systems. The Contractor shall review, analyze, and evaluate software requirements and software development plans to support radio systems. The Contractor shall also review and evaluate software metrics to determine the health of the software development effort. The Contractor shall review, evaluate, and report on the correctness, completeness, adequacy, and status of software test procedures, plans, schedules and results. The Contractor shall assist with qualification or acceptance processes as directed by the task order.

- A. The Contractor shall define and analyze detailed requirements, conduct software design and coding, conduct testing, validation and verification.
- B. The Contractor shall provide software cost estimation, risk analysis and life cycle analysis for new software application development.

- C. The Contractor shall provide sustaining engineering for all operational radio systems. The Contractor shall provide maintenance builds for flight support, COTS upgrades, technology upgrades, and any necessary upgrades due to commercial-of-the-shelf (COTS) deficiencies. The Contractor shall perform software design and development to support changing ICDs, changing vehicle requirements, problems encountered during flight, and external changes to the requirements.
- D. The Contractor shall perform design and development activities for upgrades to existing communications systems, mission specific requirements, and new programs to be supported by the facilities. The Contractor shall deliver maintenance software builds and new software builds as specified in the build definition for each project, and be responsible for the installation and integration of developed, procured or provided systems within the facility. The Contractor shall perform build management functions for software deliveries to include determination of build content and schedules, and maintenance of the build definition.
- E. The Contractor shall provide administrative support to software integration build and test activities, such as cataloging internal problem reports and code check-in documents and preparing documentation that accompanies a delivered build. The Contractor shall provide resource management of the computer hardware and software used by the software engineering organization for developmental integration and test and for making software builds. The Contractor shall establish architectures for development activities, for developmental integration and test activities and for software build activities. The Contractor shall prepare architectural diagrams of the development, test and integration environments.
- F. The Contractor shall provide fault isolation, determination and analysis, and identify proposed changes.
- G. The Contractor shall perform software test and integration to ensure the performance and functionality of the PM TR systems on equivalent or completely operational platforms. The Contractor shall use software test and integration methodologies that define standards and procedures to ensure complete, consistent meeting of functional requirements. The Contractor shall define, develop and execute all test software and data necessary to support system and subsystem testing, and ensure the correction of any discrepancies identified during verification activities. The Contractor shall develop test and integration reports including impact analysis of faults found.
- H. The Contractor shall provide subject matter expertise to include: software quality assessments of product software; participation in the establishment of a repository for program products; participation and support the system engineering Integrated Process Teams (IPT) and technical working groups; engineering advisory support for process and engineering efforts, preparing program and technical management plans, processes, and procedures; develop and implement overarching and effective processes in key technical areas (e.g., requirements, configuration control, and risk management); support the establishment and maintenance of an Integrated Master Schedule (IMS) capability; systems engineering requirements analysis, trade-studies

and architectural analyses; information assurance (IA) engineering advisory support for Information Assurance (IA) policy, process, and engineering efforts; interoperability and supportability of IT and National Security Systems; assistance in the development of technical status briefs; and perform ongoing knowledge management and analysis efforts in support of the sustainment and maintenance of the collaborative environment. All applicable deliverables shall be provided to the customer within the timeframe assigned and in the format required by the customer.

- I. The contractor shall conduct formal testing, validation and verification. The contractor shall have working knowledge of the EPG test Suite IMS, as well as commercial test tools including Ixia; and shall be able to configure Cisco networking devices. The contractor shall be capable of creating custom software test tools in order to test specific software components.
- J. The contractor shall provide knowledge and experience of the JTN-W waveforms, including the Soldier Radio Waveform (SRW) and the Wideband Networking Waveform (WNW).
- K. The contractor shall assist and provide expertise in the development of jamming resistant/tolerant waveforms.
- L. The contractor shall assist in the creation of zero configuration mechanisms to allow radios and devices to self-assemble networks.

3.2.4 Hardware Engineering Support

The Contractor shall provide hardware engineering and integration subject matter expertise relevant to radio communication systems including: conduct system performance studies, recommend appropriate changes to eliminate potential system bottlenecks, resource conflicts, and system overloads. The Contractor shall perform capacity analysis of existing computational, storage and telecommunication systems and supporting resources to ensure that systems performance is compatible with specific system requirements. The Contractor shall provide capacity planning recommendations based on analysis and changes in requirements and technology.

- A. The Contractor shall provide hardware engineering for all voice, video, computer, and data communications equipment developed under the PM TR Program Offices.
- B. The Contractor shall isolate problems in systems and effect proper resolution.
- C. The Contractor shall provide risk analysis and management that includes continual identification and assessment of technical, schedule, cost, security and organizational risks involved with the operation of systems.

- D. The Contractor shall perform technology assessments, IT system upgrade analysis and test, concept prototyping, product evaluations, and human/computer interface evaluations.

3.2.5 Test & Evaluation (T&E) Management Support

The Contractor shall provide the expertise to assist in the designing, planning, execution, analysis, reporting, and documentation during any phase of test and evaluation programs to assess the performance of tactical radio systems, subsystems, components, and equipment.

- A. The Contractor shall prepare, maintain, update, and review a full range of test and test-related documentation for specification and performance requirement compliance, conformity with mandatory guidance, and recommendations for improvement. The Contractor shall provide recommendations on integrated data, processing software, and analysis considerations. The Contractor shall recommend, assess, and analyze test and evaluation strategies, requirements and objectives. The Contractor shall perform trade off studies and recommend alternative test strategies and approaches to the Government.
- B. The Contractor shall provide assistance in recommending and assessing test data requirements to meet program test objectives within program cost and schedule constraints. The Contractor shall propose and coordinate detailed test plans and programs to include determination of objectives, schedules, and cost. The Contractor shall provide assistance in coordinating these test objectives with appropriate Network Integration Evaluation (NIE) schedules as required.
- C. The Contractor shall participate in Integrated Test Teams (ITTs), Test Readiness Reviews (TRRs), and other test related program events. The Contractor shall use analysis results to recommend changes in testing techniques, procedures, and to identify potential areas for further investigation.
- D. The Contractor shall assist in the determination of capability and availability of major DOD and civilian test resources and facilities. The Contractor shall assist in scheduling and securing required test resources in support of project and program office objectives. The Contractor shall monitor, assess status, and report on Test and Evaluation (T&E) efforts of all types of systems.
- E. The Contractor shall provide engineering support for survivability and vulnerability analysis, Electromagnetic Pulse (EMP), Electromagnetic Interference (EMI), Electromagnetic Compatibility (EMC), Emissions Security (EMSEC), and any other analysis as directed by the task order.
- F. The Contractor shall provide engineering and integration subject matter expertise on Tactical Radio Systems in Army Mid-Tier network architecture thread development, review, design, and planning.

- G. The Contactor shall support tests events in the ULTR-A laboratory to include testing techniques, test procedure development, test procedure execution, tactical Internet Protocol (IP) networking expertise, tactical network analysis, identify potential anomalies, identifying course of actions to the government, reviewing laboratory test data and provide technical analysis of laboratory test data.
- H. The Contractor shall provide guidance for Test and Evaluation in accordance with ATEC PAM 73-1 and knowledge of Operational Testing and Network Expertise as well as subject matter expertise on the NIE process and capabilities available through ATEC and various Operational Testing locations.
- I. The Contractor shall provide modeling and simulation support for waveform and system testing utilizing tools which will emulate the appropriate waveforms (WNW, SRW, etc.)

3.2.6 Configuration Management (CM)

The Contractor shall provide Configuration Management (CM) functions in accordance with the program's Configuration Management Plan. The Contractor shall provide CM services to include configuration identification, change control management, and maintenance of the existing documents and software libraries under program CM control as well as the management and performance of configuration audits.

A. Hardware Systems

In performance of the hardware systems CM, the Contractor shall ensure version control and definition and provide trace ability of version history. The Contractor shall maintain, and improve as necessary, configuration control of the hardware supporting development or mission operations.

B. Software Systems

The Contractor shall maintain, and improve as necessary, configuration control of the software and systems under development as well as those supporting mission operations. The Contractor shall prepare software builds for integrated development testing and for delivery, and provide accessibility control, traceability of build and version history, and definition control of executable operational configurations. The Contractor shall ensure that technology transfer and export documentation, rules, and regulations have been completed for each version of software.

C. Data Management

The Contractor shall provide data management services to include document, data, and library management, status accounting, database management and maintenance, change board administrative services and configuration of PMO websites.

3.2.7 Manufacturing Systems Engineering

The Contractor shall translate operational requirements into radio system design and fabrication objectives, determine suitability (stability and capability) of existing and proposed manufacturing processes for application to complex emerging product designs, and determine variation reduction in manufacturing and assembly operations.

3.2.8 Industrial Engineering

The Contractor shall provide engineering support to include requirements development, manufacturing specifications development, plant layout, development of methods to improve productivity, design for manufacturability and product quality, and process control.

3.2.9 Reliability and Maintainability (R&M)

The Contractor shall evaluate the effectiveness of Reliability and Maintainability (R&M) processes to ensure the user's R&M requirements are clearly defined and achieved and are subsequently used to develop a Reliability Centered Maintenance (RCM) program as directed by customer.

3.2.10 Manufacturing Support

The Contractor shall provide manufacturing support and be knowledgeable of the principles, criteria, procedures, and innovative approaches as they apply to the development and production of complex IT communications products. Manufacturing support tasks include interpreting, organizing and executing projects that affect manufacturing or manufacturing processes. Tasks may also include interpreting and analyzing key indicators such as equipment downtime, control charts, product yields, and equipment component failures to determine opportunities for improving performance and development of resulting data or other manufacturing support tasks as directed by customer.

3.3 TASK 3. Acquisition, Administration, and Logistics Management

- A. The Contractor shall provide acquisition management support services for PM TR. The Contractor shall be capable of providing methods, processes, and tools to strive for cost, schedule, and performance efficiencies. The Contractor shall be able to identify and correct problems, and make recommendations as they relate to acquisition management. Final work products shall have no programmatic errors, no spelling or grammatical errors, and no technical errors.
- B. The Contractor shall provide documentation, processes, and draft policies to support PM TR acquisition management initiatives. Contractor work products shall conform to the Directives identified in the RFQ, best Commercial Practices and be delivered by the date assigned by the customer.
- C. The Contractor shall assist Project Managers in the development, documentation and maintenance of acquisition strategies, strategic plans, and other formal acquisition documentation. Contractor work products shall conform to the Directives identified in this

RFQ, best Commercial Practices and be delivered by the date assigned by the customer.

- D. The Contractor shall assist program offices in reviewing acquisition documentation, and advising the Task Manager on acquisition policy and procedures. The Contractor shall complete reviews within the time assigned and work products, if requested, shall be delivered by the required date, and comply with the Directives identified in the RFQ and best Commercial Practices.
- E. The Contractor shall provide Subject Matter Expert (SME) support to the PM TR staff regarding ACAT Milestone Decision project management and planning activities. The Contractor shall be able to identify programmatic developmental deficiencies and make recommendations accordingly. The Contractor shall assist in identifying and resolving related action items. All Contractor support and recommendations shall be in accordance with the Directives identified in the RFQ and best Commercial Practices.
- F. The Contractor shall assist Project Managers and staff in the development of acquisition strategies, strategic plans, and other formal acquisition documentation, appropriate for all phases of the programs. Work products shall be delivered by the required delivery date, and comply with the Directives identified in the RFQ and best Commercial Practices.

Acquisition Work Products	Frequency
Procurement Packages	As required
Prompt Payment Certification	As required

- G. The Contractor shall support contract documentation planning and preparation (e.g., Requests For Proposal (RFP), Requests For Quote (RFQ), Task Requirements Notices (TRN), Statements of Objectives (SOO), Statements of Work (SOW), and Service Level Agreements (SLA)). Work outputs shall meet the requirements of the Federal Acquisition Regulation as supplemented by all applicable Department of Defense policies and shall be provided within the timeframe assigned by the customer.
- H. The Contractor shall support execution of contracts to include preparation of procurement packages, contract modification requests, and prompt payment certificates. Procurement packages, contract modification requests, and prompt payment certificates shall be provided to the customer within the timeframe assigned and in the format required by the customer.
- I. The Contractor shall provide Integrated Logistic Support (ILS) subject matter expertise to support: ILS Baseline (B/L) documentation; development and maintenance of relationships with DOD logistics commands; ILS planning, scheduling, budgeting management; review of existing ILS procedures and revision, development, and/or implementation of ILS processes as required; full Life Cycle Support management; Training Program Management; Bill of Material (BOM) Management; Performance Based Logistics Implementation; Provisioning and Sparing analysis and recommendations; Operations and Maintenance (O&M), Manual development and management; development and oversight of inventory and distribution concept; and technology refreshment management. Assist in the development and review of

deliveries of training materials. Coordinate with Signal School or other proponent to verify and gain formal approval of training materials, computer based training, and training devices. The Contractor shall support fielding activities after MS C. All applicable deliverables shall be provided to the customer within the timeframe assigned and in the format required by the customer.

3.3.1 Cost Estimating / Financial Management Support

The Contractor shall provide financial and cost management support services for PM TR. The Contractor shall be able to identify and correct financial problems, make recommendations, and prepare processes and tools to prevent and correct financial and accounting errors. The Contractor shall be capable of providing methods, processes, and tools to strive for cost, schedule, and performance efficiencies. The Contractor shall be capable of preparing and/or reviewing detailed cost analyses. Final work products shall have no accounting or calculation errors and no spelling or grammatical errors.

Contractors shall be proficient with: Microsoft Office (Excel, Word, PowerPoint, and Access), Acquisition Management Automated System (AMAS), Procurement Desktop Defense (PD2), intranet Resource Allocation and Planning System (iRAPS), Standard Accounting and Reporting System (STARS), Standard Army Finance Information System (STANFINS), Program Budget and Accounting System (PBAS), Army Knowledge On-line (AKO), Program Optimization & Budget Evaluation (PROBE), Procurement and R&D (P&R) Forms - Army Budget Data Base, Database Commitment Accounting System (DBCAS), Select and Native Programming – Information Technology (SNAP-IT), wInsight, System Evaluations and Estimation of Resources Software Estimation Model (SEER/SEM), SEER Hardware (SEER-H), Parametric Review of Information for Costing and Evaluation (PRICE), Automated Cost Estimating Integrated Tool (ACE-IT), Acquisition Portal and associated acquisition/financial applications, Government Funding Enterprise Business System (GFEBS), and Navy Enterprise Resource Planning (ERP).

- A. The Contractor shall assist in the consolidation and review of Program Objective Memorandum (POM) inputs, including POM briefing packages. The Contractor shall consolidate and review POM exhibits (initial, drafts, and final) within the time required to support program schedules. The Contractor shall compile and maintain POM data and shall track, maintain, and update POM documentation and data throughout the budget cycle. Documentation shall be prepared in accordance with the POM standards and applicable Directives and submitted to the customer within the timeframe assigned.
- B. The Contractor shall support the DOD POM process, including Sponsor Program Proposal (SPP) preparation and “what-if” scenarios for associated Programs. POM submissions include the gathering, consolidation, and validation of requirements from all organizations associated to support Government preparation of current and out-year spend plans. All information compiled to support the POM process shall be provided to the customer within the timeframe assigned for POM submission in the format prescribed by the customer.

POM/PR Work Products	Frequency
POM Briefing Packages and Backup	Annual plus 3 updates as required
POM Executive Summary	Annual plus 3 updates as required
POM Consolidation Reports	Annual plus 3 updates as required

- C. The Contractor shall coordinate and/or draft budgetary impact statements. The Contractor shall prepare impact statements (initial, draft, and final) in accordance with PMO guidance, as applicable, within the time required to support schedules. Documentation shall be prepared in accordance with the impact statement standards provided by the customer. Consolidation and review of impact statements shall be performed within the time required to meet schedules.
- D. The Contractor shall support initial preparation and updates to budget data calls as required by applicable Comptrollers, Office of the Secretary of Defense (OSD) Staff, Congress, General Accountability Office (GAO) and other external entities as appropriate. The Contractor shall provide budgetary information in support of data calls. The Contractor shall prepare responses to budgetary data calls within the standards and time frames requested to support schedule deadlines.
- E. The Contractor shall support the programs in the following activities: defend budgets; respond to Comptroller budget review questions, drills and supplemental inquiries; respond to Congressional requests for information; and prepare briefings for the PM TR, PEO and external authorities. Budget support must be completed within the assigned timeframe and meet the technical and quality requirements assigned by the customer. Documentation shall be prepared in accordance with the customer requested data call standard

Budgetary Work Products	Frequency
Controls Tracking	Three cycles per year (Army and Navy FMB, OSD, PB)
Executive Controls Summary	Three cycles per year (Army and Navy FMB, OSD, PB)
Budget Exhibits	Three cycles per year (Army and Navy FMB, OSD, PB)
Impact Statements	Up to two per budget cycle and five per Congressional review period
Congressional “Plus Up” Release Papers	Annually, as required

Budget Questions and Answers	Up to three annually, as required
Midyear Exhibits and Justification	Annual

- F. The Contractor shall coordinate compilation of execution data, analysis and updates in support of monthly reports, Service mid-year reviews, and external execution status requests/reviews. The Contractor shall prepare midyear and program review analysis and documentation within the time required to support scheduled deadline. Documentation shall be prepared in accordance with PM TR and associated product families, PEO and Comptroller standards.
- G. The Contractor shall prepare and maintain current execution spend plans for prior year, execution year and future years for multi-service funding as required. The Contractor shall prepare detailed spend plans, both initial and revisions as prescribed by the customer's reporting requirements, within the time-frame required by the customer. The Contractor shall maintain up-to-date spend plans that reflect the most recent information reviewed and shall integrate with all applicable financial systems. Spend plans shall be in accordance with requirements as prescribed by the customer and shall be maintained in all applicable planning.

Execution Work Products	Frequency
Monthly Status Brief	Monthly
Execution Status Reports	Monthly
Travel Execution Status Reports	Monthly
Tri-Annual Review	Three times per year
Action Item Tracking Report	Weekly
Spend Plans	Base plus weekly updates as required
Monthly Status Review Analysis Report	Monthly
Obligation Phasing Plan	Annual plus updated monthly projections

- H. The Contractor shall draft / initiate financial execution transactions within all applicable financial systems for customer approval. The Contractor shall be expert in all required systems. The Contractor shall coordinate with all applicable Comptroller organizations and the Defense Finance and Accounting Service (DFAS) for posting and reconciliation of commitment, obligation and expenditure data.

- I. The Contractor shall conduct, coordinate, and evaluate Acquisition Category (ACAT) level cost analyses consistent with OSD Cost Analysis Improvement Group (CAIG), Air Force Cost Analysis Agency (AFCAA), Army Cost and Economic Analysis Center (CEAC), Navy Center for Cost Analysis (NCCA), and PMO standards, processes and procedures. The Contractor shall be proficient in all required methods and tool sets for OSD level staff and all Services. The Contractor shall be expert in the creation and/or evaluation of Cost Analysis Requirements Documents (CARDS) and all applicable types of cost models (e.g., parametric, historical, engineering estimates, etc.). The Contractor shall assist in the evaluation of ACAT II, III or IV cost estimates, to include all applicable documentation. The Contractor shall provide subject matter expertise in DOD formal cost analyses procedures and be proficient in cost related statutes, regulations and policies. The Contractor shall ensure that all cost deliverables meet the time and quality standards prescribed by the customer.
- J. The Contractor shall provide support of all Earned Value Management (EVM) activities consistent with the EVM Guide and DOD policies. The Contractor shall provide an assessment of cost and schedule performance and indicate areas that need management attention. The Contractor shall provide a forecast of cost at completion to include historical vendor performance to date against established baselines. The Contractor shall participate in Integrated Baseline Reviews (IBR) and provide reporting on assigned areas.
- K. The Contractor shall assist in the evaluation and development of ACAT I, II, III or IV cost estimates, to include all applicable documentation. The Contractor shall provide subject matter expertise in DOD formal cost analyses procedures and be proficient in cost related statutes, regulations and policies. The Contractor shall ensure that all cost deliverables meet the time and quality standards prescribed by the customer.
- L. The Contractor shall prepare Independent Government Cost Estimates (IGCEs) as required by the customer to assess price reasonableness, determine the completeness of proposals, and support source selections. The IGCE should include the following direct costs as applicable: labor, supplies, equipment, or transportation; and indirect costs such as labor overhead, material overhead, general and administrative (G&A) expenses, and profit or fee. The Contractor shall prepare responses to IGCE development within the standards and time frames requested to support schedule deadlines.

3.3.2 Administrative Support

The Contractor shall provide administrative support services for the PM TR and associated product families. Final work products shall have no spelling or grammatical errors in the final work product submissions. Contractors shall be proficient with Microsoft Office (Outlook, Excel, Word, and PowerPoint).

3.3.3 Knowledge Management Support

The Contractor shall provide website administration support to maintain PMO websites and/or VPO and ensure configuration management of data. The Contractor shall review the content; recommend changes and post/remove documentation to the site as assigned. The Contractor shall maintain the authorized access list in accordance with policy and be responsible for adding and deleting users from the access list as approved by the Operations Director. The website shall be 98% current at all times, and new information shall be posted within one day of receipt.

3.3.4 Document Tracking

The Contractor shall track all document due dates, sending out reminder notices no later than two days before the documents are due. The Contractor shall follow-up on all reminder notices on the day the document is due to ensure due dates are met. The date the document is received by the Contractor shall be documented.

A. Research and Documentation

The Contractor shall investigate, conduct surveys and compile statistics necessary to prepare reports, correspondence, messages and memoranda within the timeframe required by the customer. Background research will be coordinated in such a manner as to minimize disruption within the office, while ensuring the proper information is gathered and compiled in order to meet the required schedule.

B. Documentation

The Contractor shall be responsible for the collection, organization, filing and retrieval of all program office documentation, including reports, correspondence, messages, meeting minutes, memos and all other incidental documentation associated with official business. All documentation shall be promptly filed in accordance with local procedures as appropriate.

C. Personnel Calendars

The Contractor shall maintain and update calendars for the PMO Personnel, as requested, and show all pertinent commitments including travel, meetings, vacation, and action due dates as appropriate. Calendars shall be updated within 30 minutes of notification of an event as directed by the authorized individual.

D. Event Calendars

Contractor shall maintain and update the PM TR and associated product family events calendars as assigned. Calendars shall show all events, major program and project due dates, and other significant activities as directed. The office calendars shall be updated within 30 minutes of notification as directed by authorized authority.

E. Conference Room Calendars

The Contractor shall maintain assigned conference room calendars, and shall serve as the single point of contact authorized to schedule and reserve assigned conference rooms. Conference room calendars shall be updated immediately upon receipt of an authorized request.

F. Graphics Support

The Contractor shall provide support with the preparation and development of graphics, briefings and multimedia presentations. Preparation shall include creating illustrations, diagrams, and charts, as directed by designated personnel. Material shall be prepared in accordance with PM TR and PEO formats, free of errors, and submitted according to the schedule of the customer.

G. Correspondence Support

The Contractor shall provide support to draft, prepare, edit and coordinate various reports, briefs, papers, and other written documentation required, using applicable DOD correspondence standards for guidance. Documents shall be free of errors in spelling, grammar, punctuation and in the proper format specified by the customer. Documents shall be finalized and submitted on schedule as required by the customer.

H. Advanced Clerical Duties

The Contractor shall perform a variety of advanced clerical duties to assist with the proper management. These duties include use of the advanced features in the provided software to perform data and statistical analysis of information and the ability to transform this information into spreadsheets, graphs, pivot charts and other output within the time constraints specified by the customer.

I. Record and Process Technical Notes

The Contractor shall take technical notes as assigned by the meeting planner. The notes shall be typed in the proper format and distributed to appropriate personnel as designated by the customer. Technical notes shall be 95% accurate and completed in the time that is required by the customer.

J. Mail

The Contractor shall receive, open, review and route incoming mail. Mail shall be identified as action and non-action as appropriate, and routed to the appropriate individual no later than 0900 each working day.

K. Shipping

Contractor shall prepare outgoing correspondence and documents for mailing, including proper addressing and postage. Contractor shall prepare the mailing container, as necessary, including properly packaging and marking classified material for mailing as directed, in accordance with current DOD, Army and Navy requirements. Envelopes and mailing labels shall be prepared in accordance with postal regulations and the Standard Navy Distribution List (SNDL). The Contractor shall research and confirm the proper address before mailing. Addresses shall be 100% accurate, and include the proper return address.

L. Route Slips

The Contractor shall prepare route slips for all action correspondence, annotate the correspondence control log, and file the route slips by close of business on the day received.

M. Suspense Files

The Contractor shall monitor correspondence suspense files, updating them as correspondence is processed, and notify the appropriate program office of overdue action items, and prepare a weekly reminder for routing to the appropriate offices on Thursday at 1300.

N. Executive Read File

The Contractor shall prepare an Executive read file of outgoing correspondence in accordance with originator instructions, and provide this file to the reviewing official by 1600 on business days or as necessary.

O. Serialized Correspondence

The Contractor shall maintain a master list of serialized correspondence, including serial number, subject and date. The Contractor shall provide sequential serial numbers as requested. This list shall be kept current at all times, with 100% accuracy, and available at a common location for easy access.

P. Correspondence File

The Contractor shall maintain a correspondence file. The file will be reviewed quarterly and purged of obsolete documents. When necessary the Contractor shall prepare required destruction certificates and deliver the documents to the authorized destruction Contractor, or destroy and certify destruction as necessary.

Q. Classified Material

The Contractor shall comply with all security regulations and instructions concerning

handling and storage of classified material under their control. Classified material shall be inventoried annually by Government authority, with no inventory discrepancies allowed.

R. Planning Support

The Contractor shall provide technical and planning support for meetings, conferences and working groups. This support shall include coordination of the meetings, drafting meeting agendas, setup and operation of Video Teleconferencing (VTC) equipment and other audio-visual equipment, taking technical notes, and finalizing and distributing those minutes as directed within the schedule established by the customer.

S. Meeting and Conference Services

The Contractor shall coordinate special events, meetings, conferences, and work groups. The arrangements will be made in accordance with the procedures and schedule set by the customer. The Contractor shall notify participants, provide agendas, directions, and arrange for appropriate equipment. The Contractor shall make the arrangements at the meeting planner's request. The arrangements for the above events are to be made within the customer's timeframe and to their satisfaction. Event reports are due ten (10) working days after the event. These events shall be planned, coordinated and executed with 95% accuracy and in the time required according to the customer.

T. Travel Planning

The Contractor shall schedule and coordinate civilian and military travel plans, including arranging transportation, lodging, and rental car reservations as requested and within the assigned timeframe required by the customer. Travel arrangements shall be accurate and conform to the most current Joint Travel Regulation. When finalized, the Contractor shall furnish both a paper and electronic travel itinerary to the customer.

U. Travel Vouchers

The Contractor shall prepare travel vouchers for civilian and military staff using the Defense Travel System (DTS). This includes reviewing travel vouchers and correcting errors if necessary. Errors are to be reported immediately to the appropriate staff as appropriate. Vouchers shall be prepared in accordance with the Joint Travel Regulation.

V. Message Reception/Routing

The Contractor shall access and monitor the SIPRNET/NIPRNET site at a minimum of three times daily, on normal business days. These times shall be prior to 0800, between 1100 and 1400 and between 1600 and 1730. Message traffic shall be received, copied, summarized and routed to the appropriate personnel within one hour.

W. Message Drafting

The Contractor shall create a draft message based on verbal or written input, into proper DOD message format for release. The draft message shall be free of spelling, grammatical and syntax errors, and checked for appropriate Plain Language Addresses (PLADs) and returned to the customer for authorized release. If necessary, the Contractor shall revise the message as indicated from verbal or written comments, and release the message when authorized. Routine messages shall be prepared for release within a half day of the request; revisions shall be made within one hour. Priority message traffic and above shall be prepared and released within the shortest practical time, not to exceed 30 minutes.

X. Message File

The Contractor shall file a copy of all outgoing and incoming messages in date time group order. Messages shall be properly filed on the day of receipt.

Y. Maintain Assigned Equipment

The Contractor staff shall ensure the office printers, copiers and facsimile machines are stocked with toner and paper as necessary, clear paper jams and empty the classified shredder as necessary. When required, the Contractor staff shall call for office equipment repair and support services.

Z. Administrative Supplies

The Contractor staff shall ensure that administrative supplies are inventoried and maintained at adequate levels, issue supplies to the office personnel. The Contractor shall prepare and present the Government ordering person a required supplies list on a monthly basis, or sooner if necessary, and assist in ordering and restocking of the supplies.

3.3.5 Operations and Maintenance (O and M) Support

A. System Installation and Fielding Support

The Contractor shall provide on notice Fielding Team(s) to conduct Total Package Fielding (TPF) for PM TR. Teams shall have the expertise to perform the fielding tasks. Teams shall be capable of providing a pre-fielding in briefing and a post fielding out briefing to the fielded unit. Team members shall have experience with TPF, Army materiel management/logistics support, the Army Property Accountability system, fielding planning, New Equipment Training (NET), and requirements documentation/development. Fielding team members should be familiar with PM TR products and/or similar systems, such as the Tactical Radio Communications System (TRCS) and Single Channel Ground and Airborne Radio System (SINCGARS).

B. Field Service Representative Support

The Contractor Field Service Representatives (CFSRs) must be capable of deploying to user locations. CFSRs must be capable of performing analyses of system operations, have

knowledge of, and experience in the operations of the system hardware and software components. They must have experience in fault detection, isolation and correction of RF systems and components. They must be capable of routine system maintenance and analysis functions including hardware configurations; adding, removing and replacing hardware components, use of hardware and software diagnostic tools; reading electronic circuit schematics. CFSRs shall interact with the customer as the equipment Subject Matter Expert in the field. CFSRs shall perform as liaison with the Contractor's engineering and logistics organization to troubleshoot and resolve technical and logistics issues in the field. CFSRs will report equipment issues to the technical staff for analysis and resolution.